

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)
)
Allocation of Spectrum) ET Docket No. 94-32
Below 5 GHz Transferred)
from Federal Government Use)

To: The Commission

COMMENTS
OF THE
INDUSTRIAL TELECOMMUNICATIONS ASSOCIATION, INC.

The Industrial Telecommunications Association, Inc. ("ITA"), pursuant to the Federal Communications Commission's Notice of Inquiry in the above-referenced matter, hereby respectfully submits these Comments for the Commission's consideration.¹

I. PRELIMINARY STATEMENT

1. The Industrial Telecommunications Association, formerly the Special Industrial Radio Service Association, Inc., is a non-profit association organized under the laws of the District of Columbia. ITA is the Commission's certified frequency coordinator for the Special Industrial Radio Service and the Industrial/Land Transportation 800/900 MHz frequency "pools." ITA also coordinates channels from the General Category pool for those entities (a) eligible to become Industrial/Land Transportation licensees,

¹ Notice of Inquiry (FCC 94-97), ET Docket No. 94-32, adopted April 20, 1993 (hereinafter "Notice").

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(b) wishing to expand trunked systems, (c) consolidating conventional systems into a trunked system, and (d) seeking to establish conventional SMR systems. ITA coordinates in excess of 6,000 applications per year on behalf of applicants seeking Commission authority to operate radio stations on frequency assignments allocated to the Special Industrial Radio Service and the enumerated 800/900 MHz frequency "pools."

2. ITA enjoys the support of a membership that includes more than 9,000 licensed two-way land mobile radio communications users and the following trade associations:

Alliance of Motion Picture and Television Producers
American Mining Congress
Associated Builders & Contractors, Inc.
Florida Citrus Processors Association
Florida Fruit & Vegetable Association
National Aggregates Association
National Agricultural Aviation Association
National Food Processors Association
National Propane Gas Association
National Ready-Mixed Concrete Association
National Utility Contractors Association
New England Fuel Institute
United States Telephone Association

II. BACKGROUND

3. On December 23, 1993, the Coalition of Private Users of Emerging Multimedia Technologies (COPE) filed a Petition for Rule Making with the Commission seeking allocation of 75 megahertz of spectrum for a Private Land Mobile Advanced Communications Service.

ITA is a member of this Coalition and played a significant role in developing the framework for the requested allocation.

4. The National Telecommunications and Information Administration (NTIA) has formulated a plan for the immediate reallocation of 50 megahertz of Federal Government spectrum to non-Government use.² Under NTIA's plan, the 50 megahertz will come from the 2390-2400 MHz, 2402-2417 MHz, and 4660-4685 MHz bands. The Commission's Notice seeks public comment on NTIA's plan. Specifically, the Notice requests comment on whether the frequency bands identified by NTIA are suitable for non-Government use. The Notice also considers the spectrum allocation issues that COPE has raised in its Petition for Rule Making.

III. COMMENTS

5. ITA believes it is imperative that the Commission and NTIA work together to identify spectrum that can be allocated for private emerging technology systems. As COPE observes in its Petition for Rule Making, "private user emerging technology systems will be fundamentally different than the vast majority of consumer-oriented, carrier-provided PCS services."³ The essential difference is that PCS systems will be designed to serve the needs

² "Preliminary Spectrum Reallocation Report," U.S. Department of Commerce, NTIA Special Publication 94-27, February 1994.

³ Petition for Rule Making, p. 12.

of the general populace. These needs will be primarily voice and consumer-oriented data transmissions. On the other hand, the future communications needs of industrial, business and public safety entities will be dominated by video-oriented, multimedia services.

6. In view of the anticipated future telecommunications needs of industrial, business and public safety organizations, ITA strongly urges the Commission to take all appropriate measures to allocate a suitable portion of spectrum for privately operated emerging technology systems. ITA finds that there is a compelling need for spectrum to accommodate such systems. There are many highly specialized needs in the industrial, business and public safety sectors that PCS systems will be unable to serve. Typically, licensees of PCS systems will not be able to provide the flexibility, user control and system reliability that operators of private radio systems require.

7. The Notice seeks comment on whether the three frequency bands identified by NTIA constitute suitable spectrum for reallocation to non-Government use. Two points are worth noting. First, with respect to 2390-2400 MHz and 2402-2417 MHz, certain factors render the bands less than ideal for many new uses. Second, NTIA appears to have settled on the three bands identified above as the only realistic candidates for immediate reallocation. With these two points in mind, ITA addresses the specific issues

raised in the Notice. We will consider primarily the 2390-2400 MHz and 2402-2417 MHz bands in these comments because the 4660-4685 MHz band is beyond the range considered to be practical for privately operated emerging technology systems.

8. NTIA's "Preliminary Spectrum Reallocation Report" provides some detail on the difficulties involved in converting the 2390-2400 MHz and 2402-2417 MHz bands to non-Government use. For the 2390-2400 MHz band, Government operations in adjacent bands rule out the possibility of airborne or space-to-Earth links. Also, any new operations at 2390-2400 MHz would have to protect the space program's Deep Space Network facility in the vicinity of Goldstone, California. Finally, radar operations by the Arecibo Observatory precludes use of the band in Puerto Rico.

9. There are potentially greater limitations affecting use of the 2402-2417 MHz band. Operations by amateur radio licensees in the 2300-2450 MHz band and the presence of microwave ovens and other non-licensed devices in the 2400-2450 MHz band are likely to impede the development of non-Government communications systems in the segment 2402-2417 MHz.

10. ITA believes that privately operated emerging technology systems will prove to be more compatible with the existing operations and limitations of the bands 2390-2400 MHz and 2402-2417 MHz than commercial consumer-oriented communications

systems. With commercial consumer-oriented systems, there are no inherent restrictions on the size, intensity of use, and scope of the systems. Entrepreneurial systems grow in response to consumer demand, and the more demand the better.

11. In contrast, privately operated communications systems adapt to the needs of the licensee. These systems do not expand, in terms of both scope and geographic coverage, beyond the licensee's internal needs. In situations where there are geographic limitations that must be imposed on the use of certain frequency bands, the Commission need not worry about private systems expanding into a prohibited area. The Commission would simply refrain from licensing a system for the prohibited area.

12. With commercially operated systems, there is always the risk that consumers will unknowingly take their mobile or portable devices into prohibited areas. With privately operated systems, on the other hand, the Commission can simply require the licensee to abide by the geographic restrictions as a condition of licensing. ITA believes, therefore, that the licensing of privately operated emerging technology systems, as proposed in COPE's Petition for Rule Making, would be more compatible with the geographic restrictions affecting the 2390-2400 MHz band than would consumer-oriented systems.

13. Privately operated systems may also prove to be more

compatible with existing non-Government uses of the 2402-2417 MHz band. With privately operated systems, there is greater flexibility in use of the spectrum. Consumer-oriented services will find their greatest value in the urbanized areas of the country. However, urbanized areas will also tend to have the greatest concentration of microwave ovens and other non-licensed devices. By contrast, many private users will need to establish their own internal emerging technology systems away from the nation's largest population centers. Historically, private users have always had a need to establish reliable communications systems in remote and sparsely populated areas. The band 2402-2417 MHz may be ideally suited to accommodate this need.

14. In its Notice, the Commission points out that the 2390-2400 MHz band could perhaps be paired with other bands, such as 2300-2310 MHz, that NTIA will likely make available later for non-Government use. The Notice asks whether it would be advantageous to delay licensing systems on some of the 50 megahertz of immediately available spectrum to await the subsequent release of potential paired spectrum. ITA does not support such an approach. We believe there is an urgent and immediate need to develop frequency bands that can be used for privately operated emerging technology systems.

15. Even assuming that the 2390-2400 MHz and 2402-2417 MHz bands are allocated for privately operated emerging technology

systems, it is imperative that the Commission consider other options for providing the full range of spectrum required by private users. The 25 megahertz of spectrum at 2390-2400 MHz and 2402-2417 MHz will satisfy part of the future emerging technology requirements of private users. This spectrum will not, however, be adequate to meet the full needs of private users. A total allocation on the order of 75 megahertz will be required for that purpose.

IV. CONCLUSION

16. The Commission should be aware that the spectrum requirement outlined in COPE's Petition for Rule Making represents a practical solution to a bona fide and pressing need. It is imperative that the Commission, acting in concert with NTIA, make a sincere attempt to accommodate the emerging technology needs of private users.

17. ITA supports the reallocation of the bands 2390-2400 MHz and 2402-2417 MHz to non-Government use. In doing so, ITA realizes that there are certain operational factors that impede the use of these bands. These factors limit the usefulness of the bands for consumer-oriented systems. ITA believes the Commission should allocate the bands for privately operated emerging technology systems. Such systems would be more compatible with the inherent limitations of the frequency bands.

18. ITA believes the Commission should immediately allocate the 2390-2400 MHz and 2402-2417 MHz bands to support the development of a Private Land Mobile Advanced Communications Service. Such an allocation would partially satisfy the spectrum requirement outlined in COPE's Petition for Rule Making.

WHEREFORE, THE PREMISES CONSIDERED, the Industrial Telecommunications Association, Inc. respectfully submits these Comments and urges the Federal Communications Commission to act in accordance with the views expressed herein.

**INDUSTRIAL TELECOMMUNICATIONS
ASSOCIATION, INC.**

By: 

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By: 

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